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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,768	12/02/2003	Sang-Bae Kim	P-0619	1794

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FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

ZEC, FILIP

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/724,768	Applicant(s) KIM ET AL.	
	Examiner Filip Zec	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 1-12, filed 10/12/04, with respect to the rejection(s) of claim(s) 1-17 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent 6,032,480 to Kim, in view of U.S. Patent 6,634,181 to Kim et al. and U.S. Patent 4,688,393 to Linstromberg et al. As such, this Office Action is being made non-final to afford the applicants the opportunity to respond to the new grounds of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant argues that the claimed discharge ports open and close selectively and not simultaneously. The wording used is not clear and further clarification is required, since the term "selectively" could also refer to the selection of *being* open or closed and not to the selection of *which* ports are to be opened or closed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-21 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,032,480 to Kim, in view of U.S. Patent 6,634,181 to Kim et al. and U.S. Patent 4,688,393 to Linstromberg et al. Kim '480 discloses applicant's basic inventive concept, a refrigerator system, having a guide passage (3, FIG. 4) from the rear wall to supply the cooled air, said passage having a circular arc shaped direction control plate (6, FIG. 3) to selectively (col 3, lines 36-42) open/close the discharge ports (3a, FIG. 4) by aligning them to the connection holes (5, FIG. 4); a guiding groove (4, FIG. 3) in the rear wall for a guiding plate (7, FIG. 4) containing said air holes; a control plate driving unit (7, 8 and 9, FIG. 4) for moving the direction control plate; a driving motor (9, FIG. 4) for providing the driving source and a rack and pinion gear system (26a and 27, FIG. 6) for transmitting driving force to the control plate, substantially as claimed with the exception of stating that the motor used is a stepper motor rotating at a certain angle, the use of temperature sensors at various positions inside of the refrigerator unit, having the discharge ports located on the left, right and top sections of the refrigerator and the movement direction of the control plate to be widthwise with respect to the guide passage. Kim ('181) shows a stepper motor rotating at a certain angle (68, FIG. 9), temperature sensors located at various positions inside of the refrigerator unit (76, 78 and 80, FIG. 12) and cold air discharge ports located on the left (32, FIG. 4), right (30, FIG. 4) and top sections (152, FIG. 2) of the

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refrigerator to be old in the refrigerating art. Linstromberg shows a plate (32A, FIG. 3) for controlling the airflow into inlet ports (62A, FIG. 3) of a refrigerator, to move in the widthwise direction (col 4, lines 32-45) with respect to the guide passage (32B, FIG. 3), to be old in the refrigeration art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Kim '181 to modify the system of Kim '480, by adding a stepper motor which rotates at a certain angle, using temperature sensors and having cold air discharge ports located on the left, right and top sections of the refrigerator in order to better control the discharge ports, improving the energy efficiency of the system (col 9, lines 48-52). It would have also been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Linstromberg to modify the system of Kim '480, by having a plate for controlling the airflow into inlet ports of a refrigerator to move in the widthwise direction with respect to the guide passage in order to produce a more reliably operated and more economically produced baffle and switch control (col 3, lines 30-33).

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,032,480 to Kim, in view of U.S. Patent 6,634,181 to Kim et al. and U.S. Patent 4,688,393 to Linstromberg et al. as applied to claim 21 above, and further in view of U.S. Patent 5,884,496 to Kim et al. Kim '480 in view of Kim '181 and Linstromberg discloses applicant's basic inventive concept, a refrigerator system, substantially as claimed with the exception of stating that one of the inlet ports is maintained open. Kim '496 shows a refrigerator containing an inlet air system with multiple holes (112 and 113, FIG. 9), wherein one hole can always be maintained opened. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Kim '496 to modify the system of Kim '480 in view

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of Kim '181 and Linstromberg, by having an inlet air system with multiple holes, wherein one hole can always be maintained opened in order to prevent the possibility of thawing in the event of the gate system breakdown and the inability of the cooling air to reach the cooled enclosure.

Allowable Subject Matter

7. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,073,458 to Kim, Seok Ro teaches an apparatus and method for supplying cool air to the interior of a refrigerator.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Filip Zec whose telephone number is (571) 272-4815. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (571) 272-4808. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Filip Zec
Examiner
Art Unit 3744

FZ

Cheryl J. Tyler
CHERYL TYLER
JULY 2009 PATENT EXAMINER